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09/991,079	11/16/2001	Valery Tsourikov	IMC-43	4738

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MILLS & ONELLO LLP
ELEVEN BEACON STREET
SUITE 605
BOSTON, MA 02108

EXAMINER

SPOONER, LAMONT M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/991,079	Applicant(s) TSOURIKOV ET AL.	
	Examiner Lamont M. Spooner	Art Unit 2626	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

Introduction

2. This office action is in response to applicant's amendment filed 10/31/07. Claims 1-20 are currently pending and have been examined.

Response to Arguments

3. Applicant's arguments filed 10/31/07 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding, Hatton, claim 1 (and similar claims 12 and 20), the Examiner reasserts the response to applicant's arguments in the final rejection made 10/18/07 directed to the applicant's remarks of July 30, 2007.

In addition the Examiner notes applicant discusses, "the automatic generation of a "problem statement" in the form of A-O (i.e., Action-Object) from the natural language user query)...In contrast, Hatton teaches that a problem statement (e.g., "The beavers destroyed the bark.") is directly input by the user, so not automatically generated by extracting query elements from an original natural language user query as in claim 1." The Examiner notes that the cited problem statement by the applicant, "The beavers destroyed the bark." is the natural language query, and is not the generated problem statement. Wherein the generated problem statement, in the form of (A-O), (S-A), (S-X-O) or (S) is done automatically (see C.2 lines 1-67, more specifically, the automatic generation of a problem statement including (bark, tree).

The Examiner notes applicant's arguments towards the "efficiency of the invention of claim 1", see applicant's arguments p.8 paragraph 6, however, the Examiner is unable to discern a difference in the knowledge base as claimed and Hatton's database, wherein Hatton's database is a universal database (C.4 lines 3-6), simply hierarchically organized, wherein the answers are determined directly from the words in the original query. Applicant argues "In the present invention the emphasis is on semantic

roles of words, e.g., S-subject, A-action, and O-object, and determining answers directly from the words in the original query and their semantic roles." The Examiner is currently unable to distinguish the applicant's invention over Hatton, as currently claimed and explained here and in the previous office action. Wherein Hatton also provides query elements in the final solutions (see previous rejections, also C.13 lines 17-19).

Applicant's arguments regarding claims 2-11, and 13-19 are based on the independent claim 1, 12, and 20, addressed above, and are thus unpersuasive.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatton (US 6,269,356).

As per **claims 1 and 12**, Hatton teaches a system enabling a user to ask a question (query) and for providing the user with one or more answers or solutions to such question, the system comprising:

user apparatus for automatically generating first signals representative of a natural language user query that includes one or more query elements in the form of (A-O), (S-A), o-r-(S-X-O), or (S) (C.13.line 17, Fig. 5. His problem statement, C.6 lines 38-45, bark, tree), the user apparatus configured to extract the one or more query elements from the natural language user query and to generate one or more problem statements in the form of (A-O), (S-A), (S-X-O) or (S) (ibid, wherein there is no further user input and the apparatus, of Fig 5, after the query, extracts problem statements, automatically-see C.2 lines 53-59-"the computer program... subject, action, object", wherein it specifically indicates the extraction from the query by the apparatus, and not the human);

a knowledge base of semantically and automatically processed information including a plurality of available answers in the form of S-A-O's (C.6.lines 38-57, Fig. 5-his experience databases as the knowledge base, wherein they are simply one database hierarchically organized by category, C.6 lines 9-12),

generate a knowledge base query from the all of the one or more problem statement (C.8 lines 53-56-as his generated knowledge base

query, bark protects tree) and identify at least one respective answer S-A-O in the knowledge base that includes the knowledge base query elements, in response to the server receiving the first signals (C.6.lines 4-13-wherein all actions, verbs and nouns "in the world" are tied together, C.7.lines 20-24, C.13 lines 14, 15 and 19, his answer S-A-O "transplant bark to damaged location", within the knowledge base before transmitted to user); and

generate second signals representative of the at least one answer S-A-O, wherein the user apparatus is configured to generate a natural language audio message or visual display of the at least one answer S-A-O in response to receiving the second signals (C.13.lines 10-19); and

communication devices configured to transmit the first signals from the user apparatus and to the user apparatus (ibid, Fig. 5).

It is noted that Hatton teach the claimed invention but does not explicitly teach a server for storing a knowledge base and for transmitting the first signals for the user apparatus to the server and for transmitting the second signals from the server to the user apparatus". Hatton's system appears to retrieve a data stored locally in

the computer's knowledge base(Fig. 5). However, the use of a server for storing a knowledge base and the use of communications from the user (client) to the server are well known in the art. Therefore, one having ordinary skill in the art at the time then invention was made would have it obvious to store the knowledge base in a server because it would facilitate many user to retrieve information that is of interest to them and therefore expand the system's capability.

As per **claims 2 and 13**, it is further noted that Hatton does not explicitly teach wherein said server conducts a search of the World Wide Web, (Identifies documents that include new answer S-A-O's each comprising an element or elements that match the one or more query elements, stores links to such documents, and adds such new answer S-A-O's to the knowledge base, and wherein the server includes, as part of the second signals, representations of each of the new answer S-A-O's).

However, the use of communication devices and searching, identifying, and linking to documents, on the Internet and World Wide Web are old and well known in the art as admitted by Applicant in the Background of the invention ("[T]o such systems capable of receiving a user entered question, processing the data representing the question,

searching local and/or web based databases for information relevant to an answer to user's query, and conveying such answer information to the user"). Therefore, one having ordinary skill in the art at the time the invention was made would have it obvious to incorporate a communication device within Hatton's search method for accessing the Internet for web based answers, with the motivation of providing user access to the numerous fundamental technical publications thereby expanding the system's capability to retrieve that information which is important to the user.

As per **claims 3 and 14**, Hatton with applicants background make obvious claim 2, Hatton further teach wherein conducting search automatically in response to the server determining that no knowledge base element or elements matches the one or more query element or in response to a user search command (Fig. 5. his problem statement into the user interface as the search command, C.1.lines 15, 16-his query, C.2 lines 7-15- the no element match, automatically provides search), but lacks said server conducts the search.. Therefore, at the time of the invention, it would have been obvious to combine Hatton with applicant's background, thus providing the benefit of automatically search expansion

thus providing an expanded source of information for search to resolve a problem/query.

6. Claims 4, 8 and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatton in view of Lamberti et al. (Lamberti, 5,377,103).

As per **claims 4 and 15**, Hatton with applicant's background make obvious claim 3, but lacks explicitly teaching wherein said server is programmed to query the user to determine if user wants to initiate the user search command. However, Lamberti et al. teach wherein said server is programmed to query the user...user search command (col. 6, lines 4-26). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify the combination of applicant's background with Hatton's search with Lamberti's query for initiating the search, the motivation being to reduce the potential for error before searching.

As per **claim 8**, Hatton makes obvious claim 1 and further teach wherein said user apparatus includes a user digital computer for generating said first signals and receiving said second signals "(figure 5, C.5.lines 28-35).

As per **claim 11**, Hatton makes obvious claim 1 and further teach

wherein said second signals represent each_ answer S-A-O in sentence format (C.13.line18).

7. Claims 5-7, 9-10, 16-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatton (US 6,269,356) as applied to claim 1 above, and further in view of Johnson (5,748,974).

As per **claim 5**, Hatton et al makes obvious claim 1, and teach the claimed invention but does not explicitly teach wherein user apparatus converts human voice signals into said first signals. However, this feature is well known in the art as evidenced by Johnson who teach a multimodal natural language interface that enables users to combine natural language (spoken, typed or handwritten) using a speech recognizer to convert the speech signal into text at the abstract and figure 2 (his speech input). Therefore, one having ordinary skill in the art at the invention was made would have it obvious to incorporate into Lamberti' s system a speech recognizer because it allow expand the capability of the system by allowing user to enter their input speaking it that would facilitate users who cannot type.

As per **claims 6-7, 9-10 and 16-19**, Johnson teaches wherein user apparatus converts second signals into audio signals (his output response generator 54).

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatton (US 6,269,356) in view of Levin et al. (Levin, US 6,173,279).

As per **claim 20**, claim 20 sets forth limitations similar to claims 1 and 2, and are thus rejected for the same reasons and under the same rationale. Hatton lacks teaching URL, and processing the url..., an HTML page to the user device, processing the at least one HTML page ...to output a solution to the user query. However, Levin et al. teaches all of these lacking elements (C.6.lines 13-55). Therefore, at the time of the invention, it would have been obvious to modify Hatton with Levin's Web search query system. Providing the benefit of natural language query through a plurality of data resources, including the Web (abstract).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

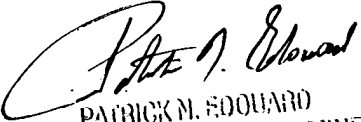
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M. Spooner whose telephone number is 571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571/272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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1/17/08


PATRICK M. EDOUARD
SUPERVISORY PATENT EXAMINER